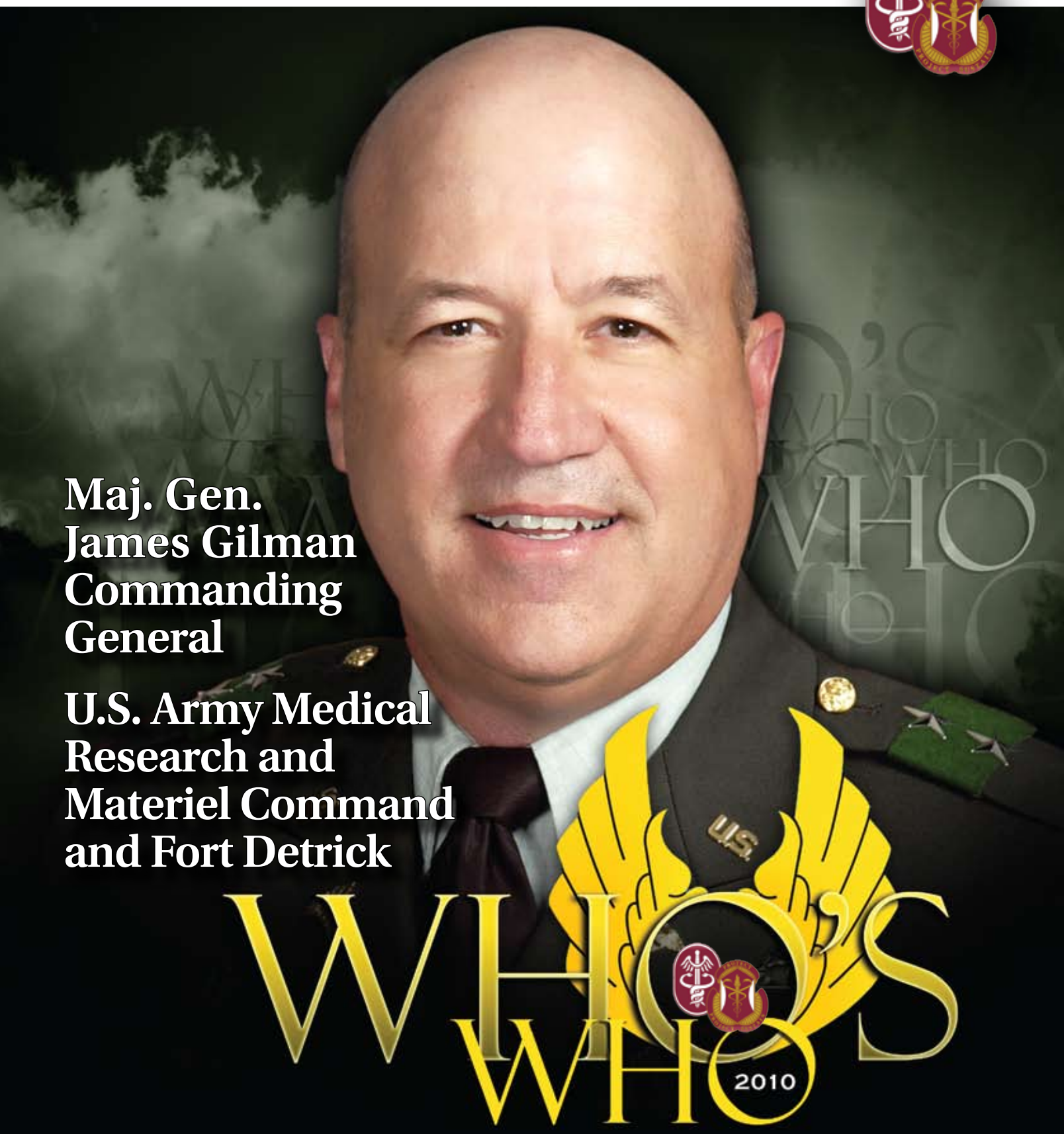
Military Medical/CBRN Technology



Maj. Gen. James Gilman Commanding General

U.S. Army Medical Research and Materiel Command and Fort Detrick

WHO'S WHO 2010

U.S. Army Medical Research and Materiel Command

Readiness Enabler

Q&A

Delivering Medical Solutions to an Army at War

Major General James Gilman
Commanding General
U.S. Army Medical Research and Materiel Command and Fort Detrick

Major General James K. Gilman hails from Hymera, Ind. He is a 1974 graduate of Rose-Hulman Institute of Technology with a degree in biological engineering and received his M.D. degree from Indiana University School of Medicine in 1978.

Following a categorical medicine internship and residency in internal medicine at Brooke Army Medical Center (BAMC), Gilman served as the chief resident in Medicine at BAMC and then as staff internist and chief, Internal Medicine Service, U.S. Army Medical Department Activity, Nurnberg, Germany. He then returned to BAMC, where he completed a fellowship in cardiovascular diseases and served as a staff cardiologist. In 1991, Gilman completed a fellowship in clinical cardiac electrophysiology at the University of Texas Health Science Center at Houston, Texas. He then served as chief of Cardiac Electrophysiology and assistant chief of the cardiology service, Brooke Army Medical Center. From 1994 until 1997, he served as chief of cardiology and Cardiology Fellowship Program director at BAMC. In 1995, he deployed to Haiti with the 2nd Armored Calvary Regiment in support of Operation Uphold Democracy.

Subsequent assignments include: deputy commander for clinical services, Darnall Army Community Hospital, Fort Hood, Texas; deputy commander for clinical services, Madigan Army Medical Center; commander, Bassett Army Community Hospital, Fort Wainwright, Alaska; acting assistant surgeon general for Force Projection, Office of the Surgeon General (OTSG); director, health policy and services, OTSG; and commander, Walter Reed Health Care System. Before coming to the U.S. Army Medical Research and Materiel Command, Gilman served as commander, Brooke Army Medical Center and Great Plains Regional Medical Command in San Antonio, Texas.

Gilman is a graduate of Command and General Staff College and the Army War College. He is board certified in both Internal Medicine and Cardiovascular Diseases. He is a fellow of the American College of Cardiology. Military awards and decorations include the Distinguished Service Medal, Legion of Merit (3 OLC), Meritorious Service Medal (2 OLC), the Army Staff Badge, and the Expert Field Medical Badge. He also is the recipient of The Surgeon General's "A" Proficiency Designator and a member of the Order of Military Medical Merit.

Q. Describe how USAMRMC is improving the mission readiness of warfighters in Afghanistan and Iraq.

A: Our command's main focus is delivering the best medical solutions to enhance, protect, treat and heal our warfighters on the battlefield. In regards to mission readiness for Iraq and Afghanistan, we have led many efforts to field the best possible products to protect our soldiers and save lives. During the current conflicts, the command has provided critical materiel support to joint medical operations and is providing solutions that address lessons learned and changes in operational requirements. As the Army's medical materiel developer, we manage the acquisition and fielding of all medical equipment used by deployed Army medical units, and we're now playing a key role in managing the responsible return of materiel from Iraq as U.S. forces draw down.

One of the ways we are improving the mission readiness of our warfighters is by working with medical researchers and industry to develop, test and field the best medical capability that is available. Some of the products new to the battlefield, coming from our command, include the remote leishmania diagnostics, combat gauze, damage control resuscitation for non-compressible hemorrhage, combat application tourniquet, rotary valve pressure swing adsorption oxygen generator, improved first aid kit, and anesthesia machines.

In addition to products, the command also established the Joint Trauma Analysis and Prevention of Injury in Combat [JTAPIC] program, which represents a new generation of joint services informatics sharing and collaboration for the analysis and prevention of injuries in combat. The JTAPIC program is a joint partnership among the intelligence, operational, materiel and medical communities with a common goal to collect, integrate, and analyze injury and operational data. These analyses improve the understanding of our vulnerabilities to threats and enable the development of improved tactics, techniques, and procedures and materiel solutions that will prevent or mitigate blast-related injuries. Prior to the establishment of the JTAPIC program, the Department of Defense did not have a mechanism to systematically analyze and integrate information across these communities.

Q. Provide an update on the Command's broad agency announcement, BAA 10-1.

A: The MRMC Broad Agency Announcement [BAA] 10-1 is intended to solicit research ideas that work towards providing solutions to medical problems of importance to the American warfighter at home and abroad. The announcement provides a general description of MRMC's research programs, including specific areas of interest, general information, evaluation and selection criteria, and proposal preparation instructions. It is staffed through MRMC headquarters to include research area directors, Telemedicine & Advanced Technology Research Center and Congressionally Directed Medical Research Programs to modify or incorporate new areas of interest for their various research programs.

Proposals are submitted through grants.gov and assigned a proposal number. The proposals that are considered to offer the best research solutions to MRMC are recommended for funding. We've received an average of 80 proposals per month since October 2009 in response to BAA 10-1.

Q. To follow up, tell us about your command's outreach efforts to the academic and small business communities.

A: Throughout the past several years, the command has embarked on a strategic and proactive outreach approach to increase the involvement of small business and academic communities. Essentially, our command's small business advocacy team, in collaboration with our contracting and acquisition principals, continue to educate, encourage and empower small business firms whose core capabilities coincide with our ultimate mission objectives. We focus our outreach efforts to businesses that are innovative and are able to provide quality products, services and business solutions at the best value. We clearly understand the importance of being able to provide equitable opportunities for all businesses to compete for procurements, and how the small business program office is an integral component within the command.

Everyone talks about globalization and international competition; our Army Education Outreach Program developed a multifaceted approach to address workforce development with concerted action. This program sets out a framework to include ideas in workforce training, education, and research and development. In addition, the command has prospered from their relationships with Historically Black Colleges and Universities and minority institutions, especially those member institutions whose core curriculums are aligned with our medical research, scientific and technological objectives. A good example of our work within academia is the formation of the State of Maryland Research and Applied Sciences Consortium, which occurred in 2004, by the urging of the command.

Presently, the member institutions [i.e., Morgan State University, Bowie State University, Coppin State University, University of Maryland Eastern Shore and Sojourner Douglass College] are working towards greater participation in the command's medical research and science objectives via interdisciplinary and interscholastic research teams.

Q: Discuss the top three challenges your command is addressing to improve medical logistics management for an Army at war.

A: Our first challenge is field maintenance of high-technology medical equipment. The introduction of advanced medical technology close to and into the battlefield has dramatically increased the prognosis for injured or ill soldiers, as well as other deployed recipients. During the past few years, we have seen deployable radiology departments evolve from simple radiographic systems with wet-chemistry processing to computed tomography [CT], computed radiography and digital tele-radiology systems.

In response to these challenges, MRMC has inserted technical experts in three broad categories: medical imaging, laboratory and pulmonary/anesthesia. All of these technical experts are employed day-to-day, repairing, rebuilding and refurbishing the equipment that they are specialized on. Many of them have over 20 years experience and all have extensive factory training on the systems they are responsible for.

MRMC is currently on its ninth 120-day forward repair activity-medical [FRAM] rotation and has seen dramatic increases in the uptime of the medical equipment we support. Notable are the CTs, which were tracked early on with a mission capable status of less than 55 percent. After the introduction of FRAM, availability rates for the CTs exceeded 90 percent. In addition to providing direct equipment maintenance, the FRAM members provide training and mentorship to our 68A, biomedical equipment specialists while they are deployed.

Our second challenge is networking of theater medical supply operations. I believe the sophistication of modern medical capabilities is evident in the tremendous range of medical supplies demanded to sustain casualty care and force health protection. Therefore, the challenges of synchronizing medical supply information and orders across the multiple "islands of data" that characterized the legacy system environment led MRMC to develop a modern ERP [enterprise resource planning] solution to modernize theater medical supply operations. The TEWLS [theater-wide enterprise logistics system] initiative focused first on U.S. Army Medical Materiel Agency to provide the foundation for enterprise data management within a total life cycle management framework. TEWLS Release 1 was completed in 2006 and the development focus shifted to U.S. Army Medcal Materiel Center-Europe [USAMMC-E]. Work on TEWLS Release 2 was completed in November 2009.

Today, USAMMC-E, Southwest Asia, and Korea have all successfully transitioned to TEWLS. This would not have been possible without the intense dedication of MRMC professional logisticians that were detailed from their normal duties at

USAMMA and USAMMC-E to develop a world-class system based on their expertise. Also, the Defense Logistics Agency served as a key partner by linking TEWLS to its acquisition and financial processes, allowing a near-seamless medical supply chain to extend from commercial suppliers to deployed medical logistics elements in the theater.

Our third challenge is the increased work associated with the Army's Left Behind Equipment [LBE] Program. Our command assists the Army Sustainment Command in the execution of the Army LBE program by providing the medical logistics expertise, inventory and maintenance, which is unique to the MRMC. Our role includes assisting units in conducting a 100 percent inventory and verifying the medical equipment is inducted at -10/20 standard. Let me go into a little more detail. Equipment at -10/20 means that the equipment is serviced and calibrated and includes all accessories and consumables required to make the item fully serviceable, ready to provide patient care. Our strategy and execution of the LBE program centers on combat support hospitals, as these units have the largest density of complex, maintenance intensive medical equipment.

Notable benefits from this program have been our command's deploying 68A soldiers who receive invaluable on-the-job training and mentorship from MRMC depot level medical maintenance experts on the medical equipment items similar to the items they will see during their deployment. This training enhances their familiarity with the equipment, and more importantly, it increases their level of confidence to service the equipment while deployed in an austere environment. Additionally, the availability of serviced -10/20, maintenance-ready medical equipment in our combat support hospitals has increased by 22 percent as a result of the LBE program.

Q. How is your command seeking to better optimize information technology across its portfolio?

A: In April 2004, the Army established an online medical consultation service for deployed medical providers. Any doctor, nurse practitioner, physician assistant or medic [active duty, Reserve or National Guard from any service] can submit a consult request for assistance in rendering a diagnosis, interpreting tests, developing a treatment plan or to coordinate care. Currently, medical experts spanning 19 different specialties are actively responding to consult requests. This was initially designed to provide information directly to health care providers caring for sick or wounded U.S. soldiers, but now the consult service is also used in support of humanitarian, disaster and civil affairs missions. Consults have been received from 40 different countries and from ships at sea. Most recently, it was deployed for use in Haiti. From inception through February 28th of this year, 6,801 consults have been answered—averaging 95 consults per month. There have been 87 evacuations prevented and 273 evacuations facilitated. There are 1,747 "different" referring providers from all services participating. The Telemedicine & Advanced Technology Research Center at MRMC was heavily involved in the creation of this capability and continues to actively support its ongoing operations. ★

For more information, contact *MMT* Editor Marty Kauchak at martyk@kmimediagroup.com or search our online archives for related stories at www.MMT-kmi.com.

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Work With Us

Delivering the Best Medical Solutions to Support Our Armed Forces Worldwide.
The nation's military forces may be called to serve anywhere in the world during times of conflict or peace.

Among the threats our forces face are injury from combat operations, exposure to chemical or biological warfare agents, environmental extremes and endemic diseases not common in the United States. A complex and diverse organization, USAMRMC protects and sustains the health and fighting ability of soldiers, sailors, airmen and Marines through its programs in medical research, medical materiel development, medical logistics and the development of new technologies to improve military health care on the battlefield. The command is engaged in a broad spectrum of activity, from basic research in the laboratory to innovative product acquisition and the fielding and life cycle management of medical equipment and supplies for deploying units, and combat support hospitals.

Six laboratories make up the command's core science and technology capability. These centers of excellence specialize in various areas of biomedical research, including infectious diseases, combat casualty care, operational medicine, clinical and rehabilitation medicine, and medical chemical and biological defense, and are staffed by highly qualified military and civilian scientists and support personnel. In addition, a large extramural contract research program and numerous cooperative research and development (R&D) agreements with leading organizations in the civilian sector complement the command's in-house science and technology capabilities. To support its vision and mission, USAMRMC continually strives to advance the R&D of medical products and technologies to support our Armed Forces. It does this by forging collaborations with researchers, businesses and other organizations through its unique extramural research funding programs.

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Medical Devices	MCHJ-AOS	(301) 619-2235
Integrated Clinical Systems	MCMR-ACP	(301) 619-3674
USAMRMC Enterprise IM/IT	MCMR-AC	(301) 619-3353
Theater-Wide Enterprise Logistics System	MCMR-MMA	(301) 619-9405

Business Opportunities

Businesses have several ways of working with the U.S. Army Medical Research and Materiel Command. USAMRMC continually strives to advance medical products and technologies to support our Armed Forces by participating in collaborations with researchers, businesses, and other organizations through cooperative agreements (CRADAs) and extramural funding programs (contracts and assistance agreements). All research proposals must be submitted through the www.grants.gov web site. For additional information or to submit a new product idea, visit www.usamraa.army.mil.

New Products and Ideas Website

The U.S. Army Medical Research and Materiel Command recognizes that unsolicited proposals of unique and innovative products or ideas that have been developed outside the government can help the command accomplish its missions. To submit a new product or idea for consideration, visit the USAMRMC Website and click on the "Submit a New Product or Idea" button.

Small Business Programs

The U.S. Army Medical Research and Materiel Command has experienced firsthand how small businesses can deliver a required product or service on time, in the right quantity and at a fair and reasonable price. Whether the procurement is a micro-purchase via government credit card or a multimillion dollar contract, the command has reaped many benefits of its formal arrangements with small businesses. The command makes a concerted effort to forge strategic alliances with various small businesses that offer innovative products, quality services, and dynamic business solutions in support of many Department of Defense initiatives.

According to the Department of the Army metrics, during the last two years, the command has been successful in exceeding the mandated goal of awards made to small businesses. Visit the Office of Small Business Programs Website (www.mrmc.smallbusops.army.mil) to learn more about how small business can work with the command.

Vendor Day

Vendor Day is a cooperative venture hosted by the military service medical logistics agencies located at Fort Detrick in Frederick, Md. The cooperative venture is a series of dates set aside for vendors of medical equipment and supplies to display their products to multiple service organizations at one time.

The dates for 2010 are May 5, September 8, October 13 and November 10.

For information and guidance regarding vendor requests for product dissemination and review, contact:

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U.S. Army Medical Research and Materiel Command (USAMRMC)
Fort Detrick, Maryland 21702-5014
301-620-7071 Fort Detrick Business Development Office
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WHO'S WHO 2010

Command Overview

The U.S. Army Medical Research and Materiel Command is the Army's medical materiel developer, with responsibility for medical research, development, and acquisition and medical logistics management. The USAMRMC's expertise in these critical areas helps establish and maintain the capabilities the Army needs to fight and win on the battlefield.

Ensuring our armed forces remain in optimal health and are equipped to protect themselves from disease and injury, particularly on the battlefield, is the job of the U.S. Army Medical Research and Materiel Command. The command is headquartered at Fort Detrick, Md., with 11 subordinate commands located throughout the world.

Six medical research laboratory commands execute the science and technology program to investigate medical solutions for the battlefield with a focus on various areas of biomedical research, including military infectious diseases, combat casualty care, military operational medicine, medical chemical and biological defense, and clinical and rehabilitative medicine. The command manages a large extramural research program with numerous contracts, grants, and cooperative research and development agreements to provide additional science and technology capabilities from leading academic institutions, private industry and other government organizations.

Five additional commands focus on medical materiel advanced development, strategic and operational medical logistics, and medical research and development contracting to complete the full life cycle of medical materiel acquisition.

The command is staffed with highly qualified scientists, program managers, logisticians, contracting experts and support personnel. The critical expertise in these areas ensures we have the medical capabilities the Army needs to fight and win on the battlefield. Overall, about 6,000 military, civilian and contractor personnel are assigned to support the headquarters and subordinate units. Officers, enlisted soldiers, and civilians—many of whom are among the most respected and knowledgeable specialists in their fields—provide subject matter expertise in medical, scientific and technical areas throughout the command.

Medical information and products developed by the USAMRMC protect and sustain the health and safety of the force through deployment and combat. The USAMRMC motto, "Protect, Project, Sustain," emphasizes the command's priorities in support of the warfighter.

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Commanding General

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